THE

HOME FRIEND;

A WEEKLY MISCELLANY OF AMUSEMENT AND INSTRUCTION.

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THE BLACK SEA.—No. II.

BULGARIAN SHEPHERDS.

DAY, meanwhile, followed day, and we remained indefinitely tied to the shores of Kilia, without daring to put to sea. I had made again and again every possible observation, celestial and terrestrial; M. Laurens, in half-a-score of sheets, had exhausted the small stock of picturesque objects the place presented, and we had nothing to do but to remain on the shore, with our arms crossed, and await with stoical resignation the moment of departure.

At last the wind dropped, and allowed us to launch the wretched boat, which cut such a sorry figure on the beach. Our Greeks, full of courage, gaily prepared to struggle against the heavy swell which yet lingered after the storm; and we set out in the hope of reaching before night Domous Dereh (the Valley of Hogs), the shore of which, unapproachable when the sea is in the least degree agitated, was distinctly in sight at the distance of an hour or two's sail. But just as we were at the very point of landing, the tempest, which had only lulled, resumed in full force. The waves, after a moment's indecision, changed to billows bristling with foam; a double night suddenly shrouded us, and what rendered our situation still more critical was the impossibility of returning to Kilia. There was no help for us but to make for Kara Bournou (the Black Cape), the only point accessible to boats. The boatmen, unable to make any further use either of sail or rudder, strove to lose sight of their danger by invocations addressed to Panaia (the Virgin Mary), for whom, like true sailors, they entertain a superstitious veneration. One of them fell on his knees at each shock of the boat, bidding adieu to his family, Buyuk Dereh and Sarrieri—villages of the Bosphorus—with such touching eloquence that his companions wept in sympathy. At times, Captain Yanko took his seat among the rowers, while I replaced him at the helm. As for M. Laurens, sea-sickness kept him stretched unconscious in the bottom of the boat. This situation lasted for several hours, becoming every minute more and more perilous, when all at once was heard a noise like a series of reports of artillery, and we found ourselves close to an immense black mass, which proved to be nothing else than the famous Kara-Bournou. The ill-omened reputation of this headland, the darkness, the deafening noise of the sea, and all the emotions we had already experienced renewed at once, gave to this moment something solemn. We doubled the cape, tossed by the waves like a straw. Had it not been for the skill and perfect knowledge of the localities possessed by Captain Yanko, our bark would have been undoubtedly crushed to pieces, so much did night add to the danger of the enterprise. But all turned out well, and the boat floated into a pretty little cove, illuminated by the rays of the moon struggling through a rent in the clouds.

There were already two vessels, belonging to charcoal-sellers, which had been weather-bound here for eight days. "Frenchmen!" cried some of them, hastily running up to our national flag, which they set eyes on for the first time; "Frenchmen! who but men of this nation would be such fools as to sport thus with the tempest. Allah! they are our friends and our guests." Such was the reception we met with from these good people. Immediately lending us a hand, they helped us to land—by no means an easy operation in the midst of sunken rocks and islets, which are here so numerous as to render this little harbour inaccessible to vessels of deep draught.

The table-land on the summit of Kara-Bournou is defended by some indifferent batteries manned by about sixty Turks. During the war of 1838 the Russians fired some shots at the village without condescending to make themselves masters of it. The garrison is so totally destitute of all resources as actually not to contain enough powder to fire the sunset-gun during the Ramazan; consequently, the commander and his company consider themselves as abandoned by Mohammed and all human beings.

Next day, seeing the impossibility of leaving, we pitched our tent as near as possible to our boat—a very necessary precaution with such neighbours as we were treated with—and made preparations for an encampment which was to last several days. On our right, stretched masses of limestone, rich in fossils, the summit of which was crowned by the village and some dilapidated windmills. On the left, towards the sea, stretched away high chalk cliffs, from above which picturesquely descended, as it were, a cataract of vegetation.

On the summit of the cape is a mean coffeehouse, kept by an old artilleryman named Ali Tchaous, the most perfect model one can imagine of Turkish good-nature and dignity. The divans of his establishment serve as sleeping-places to the first-comers. Unceasingly visited by the inhabitants of Kara-Bournou, he seems to be the good genius of the place. One of his tenants is a sort of phantom, who for many years has been consuming with fever; his appearance was terrible. We gave him a few doses of quinine, without, however, entertaining much hope of effecting a cure, so desperate did his state appear.

Beyond Kara-Bournou, a succession of little headlands, separated by beaches and sand-hills, loses itself towards the west in a horizon of mists. The inhabitants of this dreary district employ themselves in fishing and agriculture; but the sandy nature of the soil is only adapted for the cultivation of the vine.

At nightfall a Turkish vessel presented itself at the entrance of the bay, making, as it seemed to us, genuine signals of distress. Three times she hauled down and again hoisted her colours, as if beseeching our assistance. This manœuvre appeared to me so decisive that I prevailed on my Greeks to put to sea in order to rescue them from their apparently perilous situation. What, then, was my surprise when I saw the boat return almost immediately, having on board a female all in rags, and a wretched child wrapped in a piece of sailcloth, whilst the ship rapidly disappeared behind the cape. But I was yet more mortified than surprised when I found from Captain Yanko, who was fuming with passion, that the sole object of the signals was to land these two interesting persons. This was certainly outrageous conduct; but the vessel was a Turk, and in this sole capacity claimed the right of incommoding others to save herself trouble.

Several vessels took refuge in the bay, like a flock of scared birds seeking shelter. The anchorage was so confined that we found ourselves running foul of one another, without having the least power of helping ourselves.

The commander of the fort having intimated to us the position of some ruins, M. Laurens and I went in quest of them; and after an hour's walk we discovered at the entrance of a lake, near which were feeding a countless herd of magnificent buffaloes, a long line of walls, the architecture of which appeared to date from the beginning of the Lower Empire. To judge by the numerous ruins, these walls must have formed a considerable enclosure. At the present time they contain a vineyard. No inscription, however, appeared, and no other record of the past. I should have considered myself entitled to regret my long walk had it not been for the view of a lovely country to which it introduced me. Meadows, cultivated fields, numerous flocks, cottages on the borders of the lake, green copsewood, all enclosed in a limited amphitheatre, presented such a contrast to the black cape, with its

violent storms, that we remained a long time fascinated with this little paradise, so peaceful and secluded was it. We were obliged at last to tear ourselves away, and then our surprise commenced.

The line of walls, which seemed in my eyes to comprise all the ruins in the district, was nothing compared to what awaited us on the other side of the lake. A line of walls, flanked by three square towers of an imposing aspect, in spite of their dilapidated condition, unexpectedly excited our admiration. They extended for more than seven hundred paces; and the surrounding country was such as to add considerably to the picturesque effect.

The ruins of the square towers, which projected beyond the enclosure, were covered with an almost tropical vegetation (an extraordinary circumstance in this region), which gave them an inexpressible charm. Masses of laurels covered all the platform and the two slopes which led to them. To what era are they to be referred? It is difficult to say in the absence of all inscriptions and of any peculiar style of architecture. Their construction was very different from anything Turkish that we had seen; besides, they have an air of antiquity, which forbids their being assigned to the present dynasty.

From the time of the conquest of Constantinople no war of note has been described in the history of these countries. It is probable, therefore, that these ruins are to be traced back to the Lower Empire; and that this locality had been chosen for the site of a town at the time when the Ottoman Empire, establishing itself at Constantinople, found in the vicinity of its capital a savage and half-subdued population. Everything indicates that in the choice of this locality a defensive stronghold was what was principally aimed at. It is equally probable that an ancient Greek town existed in the neighbourhood. This was evident from a number of marble pillars which had been worked into the foundation of the outer wall. I counted as many as seven mutilated columns; and there are doubtless others, which the accumulation of rubbish prevented me from discovering. In different parts of the enclosure we had observed courses of brick, which recalled Genoese masonry. But it is questionable whether the Genoese ever thought of founding, in the interior of a country, a domicile so remote from their other possessions. Pliny speaks of a town called Devilton, situated on a lake, the position of which accords with that of these ruins. Arrian says nothing about it, as might be expected, for he only mentions the maritime towns. At the upper extremity of the lake is a village, entirely built of materials brought from these ruins. It bears the name of Tergos-Kalessy, and its inhabitants designate the lake and ruins Polam.

A fresh excursion brought us next day to a long, sandy shore, covered with the remains of wrecked vessels—some old, others quite recent. Hen-coops, boxes of eggs, and casks of cheese, covered with tangled seaweed, lay among shattered spars, planks, and torn sails, presenting a pitiable sight. Everything intimated a recent shipwreck. Two of our boatmen completely stripped themselves, that they might carry in their clothes the most available of the spoiled provisions; and omelets were in fashion for a whole week after. What a catch for poor creatures who had no other provisions than black, half-rotten olives and a bundle of small salt fishes. They were blamed, however, for having appropriated what belonged to people who had been shipwrecked—this being superstitiously supposed to be followed by misfortune.

One needs to have one's nerves well strung to resist the influence of such a place, rendered yet more dispiriting by the sight of the Black Cape, which sent to us the din of the squalls eternally roaring about its base. Everything bore the impress of destruction and of the strife of the elements. Black and heavy clouds, rent at times by vivid lightning, and hurried along frantically by the blast, put the finishing stroke to this picture of blustering tempest, so complete that the imagination could add nothing to its horrors.

Penetrating into the country, we fell in with some Bulgarian shepherds, taking to Constantinople two immense flocks of goats and sheep. Armed to the teeth, they presented the appearance of bandits returning from plunder rather than peaceable shepherds quitting their pastures. All the population repaired to-day to a fountain, the waters of which were said to possess miraculous virtues. It was St. John the Baptist's day—a festival celebrated with great pomp in the Greek Church. Women, children, sailors, fishermen repaired to drink with devotion the water of the fountain, having first kissed with ardour a great image held by a priest to sanctify their act; they then had their names inscribed in a book, for which they paid a trifling sum, and returned to prostrate themselves before another image, to which they appeared to address fervent prayers. A wide green then became the scene of the amusements of the crowd, who, distributed into groups, showed themselves as ripe for pleasure as for devotion. Numerous vehicles, drawn by buffaloes, formed as it were a frame to the picturesque scene presented by this joyous Greek population, who betray their heathen origin even in their adorations of the Virgin.

We passed a fortnight at Kara-Bournou waiting for a fair wind. Some miles from this place I discovered fresh ruins crowning the summit of a cliff, and presenting, amidst a great deal of rubbish, a wall faced with rectangular stones, extending for five hundred paces, with a square, massive building at one of its extremities. These ruins have in Greek the name of Paleo-Pyrgos, and in Turkish that of Eski-Pourgas. They are situated at the entrance of the road which leads to Adrianople by Silivry. They are beautifully situated, and command a view of the sea and of a range of hills traversed by valleys, covered with rich vegetation.

Among these valleys, that of Kalamitch contains a Greek village, composed of about fifty houses, surrounded by meadows and well-cultivated fields. The inhabitants employ themselves exclusively in burning charcoal and rearing cattle. At some distance we saw an immense number of vultures, some hovering over the sea, but the greater part perched on the crags. Many of them were crouching in holes excavated in regular tiers, and thrust out their long, naked necks as if to see us pass. In the water were swimming myriads of Medusas, resembling open flowers, cradled by the waves. The evening was so calm, and the horizon so magnificent, that all was in keeping with this strange and lovely sight.

We then passed in front of the Valley of Armen-Dévé, the appearance of which is enchanting. From this point the coast assumes a more imposing character: the hills change to mountains, the valleys to deep gorges, the little coves to wide gulfs. Enormous masses of gneiss project into the sea, and shelve high in air over the mariner's head. One of the points of Cape Machakah, which we doubled on our way

to Midiah, presents in the middle of its gigantic mass a large natural opening, visible several leagues from land.

All these rocks are covered below the water-mark with excellent shell-fish, said to be superior to any other; they are, however, nothing but pointed limpets.

Midiah is situated on a wide plateau, reaching to the sea on the east, and terminating in limestone cliffs, which are washed by a small river, forming, close to the town, an anchorage for such vessels as are able to pass the bar of sand at its mouth. The passage is scarcely more than three or four yards wide. With a strong northerly wind the sea washes not only over the bar, but over a sandbank also which lies between the river and the shore. Two rivers, the banks of which are much frequented by grey herons, singularly shy, bound the plateau, and lose themselves in the most delicious valleys that can be imagined. Rarely can one meet with a landscape fresher, more peaceful, or more harmonious, both in colouring and outline, than the northern valley, through which winds a glassy river, reflecting masses of verdure and the numerous flocks which feed on its banks: on each side rise little eminences, or shrubs; while rocks and herbage are associated in exquisite confusion and in endless variety. The ground then insensibly rises, and presents a range of hills thickly wooded; and finally, in the background, losing itself in a brilliant horizon, is detected the imposing chain of the Balkans, celebrated in antiquity under the name of Mount Hæmus.

To the east, between two valleys, is a narrow defile, commanded in bygone days by high walls, vestiges of which are yet in existence. These walls must have formed the enclosure of the town. The outline of them may be clearly traced above the slopes of the southern valley. Towards the south a long line of these walls, flanked by round towers, is in a perfect state of preservation, reaching to the cliffs, which rise above the anchorage. They are built partly of hewn and partly of rough stones. Towards the south-west are two brick towers in the Byzantine style; but they are in so dilapidated a condition that it is impossible to say whether they are round or octagonal. Although apparently belonging to the Lower Empire, these walls, judging from the diversity of the materials of which they are composed, must be referred to an earlier date. For instance, the foundations and walls themselves, up to a certain height, are of rectangular stones; then come courses of unhewn stone and bricks, laid in without order; and finally, in the middle of all this, portions of cut stone appear again, as if the walls had been rebuilt, after their first demolition, out of the materials of the primitive structure. But, however important they may be, these ruins cannot be compared with the crypts found in the neighbourhood of Midiah, and to which we devoted several days' serious attention. It was not without great trouble that M. Laurens succeeded in taking four views by torch-light, besides some most interesting details. Our difficulty was much increased by a swarm of blockheads, convinced, as usually happens in such cases, that our object was the discovery of hidden treasure. The entrance to these subterranean chambers is a long passage, or vestibule, having in the walls, on each side, openings which lead to other parts of the excavation, and terminating in a chapel, or piscina, with an arched entrance. The chapel is surmounted by four cupolas, and ornamented with four columns. The ground-floor is lower than that of the passage,

and is gained by two or three steps; in the centre is a spring, the water from which is received into a small stone basin.

On the left-hand side of the vestibule are the three gates of the temple, the proportions of which, though small, are regular. The nave is vaulted, and the chancel is approached by a semicircle of steps. The two aisles are not vaulted, but have a flat ceiling, and are divided from the nave by a colonnade, the cornice of which is decorated with carvings. A side gallery extends from the entrance-passage parallel to one side of the temple, and, turning at right angles, passes behind the chancel.

On the right-hand side of the vestibule is a hall, round which have been excavated seven chambers, which, from their form and from the difference of their dimensions, seem to have been destined to receive the bodies of persons of various ages. A smaller cell has been dug by the side of the Hall of Tombs; and near it is a rude grotto, in its natural condition, and presenting yet the appearance which the others no doubt wore before they were altered and enlarged by the hand of man.

The dimensions and workmanship of this temple indicate a period when architecture had preserved the beautiful simplicity of its forms, but when those of sculpture were already greatly adulterated. It was undoubtedly a Christian temple. The walls of the chapel in which the piscina is situated still bear the figure of the cross.

The limestone rock in which the temple is excavated is of a fine and even grain: it has preserved its primitive whiteness; and whatever its antiquity may be, the only marks of decay are the handiwork of man. He, not time, has mutilated the columns of the piscina, and thrown down three pillars of the vestibule without producing any effect on the vaults or arches. The only traces of the ravages of the universal destroyer are a long fissure in the rock, which forms the vault of the gallery, and an accumulation of earth, partly blocking up the entrance. These injuries are, without doubt, the effect of an earthquake, at which period, also, the excavation, perhaps, ceased to be resorted to. Its preservation, under any circumstances, would lead me to suppose that the entrance was for a long time blocked up by the fall of earth, and that so it escaped fresh mutilations, atmospheric influences, invasions, changes of religion, &c. Its situation, too, in so retired a spot must have helped to keep it out of sight.

The population of Midiah consists of five hundred Greeks and thirty Turks, whose miserable little mosque is banished, as it were, outside one of the town gates. By the side of the basin, washing the cliffs of Midiah, there is in the solid rock the entrance to a large subterraneous passage, which forms a communication between the little harbour and the upper part of the town. It is a genuine postern, ten feet wide, with its flight of steps cut in the rock.

The Greeks pretend that there formerly existed in this subterraneous chamber an immense reservoir of water and a store of provisions, which, being discovered by the Turks, led to the capture of the town. Another tradition goes back to a Russian invasion, long prior to that of the Turks. It would be curious enough if the memory of ravages committed in the eighth or tenth century by the Russians in these countries were yet preserved at Midiah. However this may be, it is incontestable that this town possessed in bygone days a great importance, as is evidenced by the extent of the ruins and excavations which surround it.

The walls of the only coffeehouse at Midiah are covered with fantastic sketches of ships, evincing the fondness of the Greeks for the sea and the arts. It is kept by a priest, whose ordinary occupation is mending nets and playing at backgammon. The Greek clergy resemble the Russian: the same ignorance, the same stupidity, the same filth.

C. A. J.

THE CENTENARIAN.—No. III.

"About this time an event occurred which affected me in a very powerful degree. I have before observed, that I had very few immediate relatives left, the number was now reduced to one. He was a man of high and unblemished character, universally respected, and with justice; for he was eminently useful in public life, a generous friend, a most liberal benefactor to the poor, and a sincere Christian. In the midst of health and in the very prime of life he was suddenly arrested by the hand of death. On the first intimation of his danger I hastened to his bedside. I found him not only resigned to the will of God, but cheerful; I could almost say he was thankful. I wept, and words of regret and lamentation escaped me. He gently checked my grief.

"'I humbly trust, dear sir,' said he, 'that my task is done; I have endeavoured to accomplish the end for which my Creator gave me breath, the setting forth of His glory, the good of my fellow-creatures, and the welfare of my own soul. If it was the will of God to grant me a longer life I should be grateful, but I have no particular wish to extend my present existence; for in faith I behold another and a better world, felicity of which the joys of this earth are but as faint shadows.'

"He was followed to the grave by a crowd of real and sincere mourners. Every one had something good or kind or honourable to relate of him; his loss left a blank in society; for a considerable time afterwards his name was never mentioned without a sigh, a tear, or a blessing on his memory.

"My mind was disturbed by poor Vincent's words. I was uneasy, and certain misgivings distressed me; but I would not listen to the thoughts that strove to make themselves heard. What was I living for? What had I done, either to answer the end of my creation, or to cause my departure to be a source of genuine regret?

"As we were coming away from the grave, for I attended the funeral of this last of my relations, as I had done that of many before, I heard a person say, 'Yes, but it is better to die too soon than to live too long.' The speaker might not allude to me, he might not even have seen or noticed me; but there was a voice in my own heart which would have echoed the sentiment if I had permitted it. Oh! it is a painful state to live in habitual resistance to a conviction, which only becomes the more confirmed and powerful as we close our senses against its admission.

"For a little time after poor Vincent's death unusual respect and tenderness were shown me. Persons felt for my lonely situation; and a regard to his memory made them, as they thought, sympathise with me, and endeavour by their attentions to supply what I had lost in him. But by degrees this passed away. Men again became absorbed in their own pursuits; and they argued, probably as I had frequently done in the days of youth and manhood, that the sense of grief is blunted

by old age, and that if feeling be keen for a time, it is only to make its duration the more transient. The idea formed a satisfactory excuse for what else might have seemed neglect; and as I had no particular claim on any person, so all at last seemed to forget me.

"For a while the connections of my late relative had continued to call on me occasionally; but these became less numerous. Some died, and others changed their residence, and I was a stranger in the place of my nativity. When I appeared in public, for it was my invariable custom to walk out once a day, few persons passed me without some mark of respect; but I began to notice a visible alteration even here. Many did not know me, and either passed me with indifference, or pushed rudely by me. Many more of those I encountered were strangers to me; and when I had returned a bow, I often strove in vain to recal the features of him who had shown me this politeness. Time was also that, when I appeared in the streets, the most profound reverence was shown me by the poor; the mechanic, the tradesman, the husbandman would not have thought of treading on the same pavement with me. Now a few old or middle-aged people would bend their heads to me; but by-and-by I was scarcely noticed, and the very children cared not to get out of my way.

"I was conscious of it all—I felt it all keenly—but my heart was not yet humbled sufficiently to draw the confession from me which my pride stifled.

"The domestics who had known me in my days of strength, many of whom had grown old in my service, were all dead; those who now waited on me, knew me only as I was, and I could see that they ridiculed my fancies; that they looked on me as a being of long-past generations, whom, though they might not dare to disobey him, they took little interest to please.

"Stronger and stronger grew the suspicion that I had asked in folly, and had been answered if not in severe displeasure, at least in the spirit of correction. I turned back to the past for enjoyment, for the present would not allow me to have anything in common with it. I had recourse to the hoarded correspondence of former years for companionship, and for a little while I was amused; but the feelings which these letters awoke, the contrast they presented of former activity, general estimation, and the flattering deference that had been paid to my judgment and opinions, with the neglect, perhaps the contempt, that was now shown to my sentiments, soon made me glad to return them to the drawers from which I had taken them; for I could not yet summon the resolution to destroy them.

"I had one treasure, however, yet spared me; one living tie as I felt it between myself and the past and present. This was my mother's favourite tree, the tree under which she had often instructed me and my brothers and sisters; had sat to work, and had permitted us as a great indulgence to eat our supper in the warm evenings of summer. It was of the Acacia tribe, and had barely reached its maturity at the time I am speaking of. Long after her death it appeared in all its luxuriance. It was beautiful in itself, and as such I valued and admired it; but at that time its association with my mother's memory was neither very strong nor very vivid. By degrees, however, it grew in my estimation from other causes, and as the circle of my friends and acquaintances grew narrower, this tree became more and more cherished by me.

"I had remarked its decreasing vigour for several springs; but when I first perceived the difference it gave me no great concern. Afterwards every symptom of decay that it exhibited called forth the most lively regret. I felt that I could not part with it without a severe pang. Sometimes I leaned my head upon its trunk; sometimes I wound my arm round it, and, as former recollections passed before me, I pressed my bosom more closely to it. I omitted nothing that art could devise to arrest the progress of decay, and I watched it with a miser's care.

"I flattered myself that it would yet last many years, but alas! a strong gale one night levelled it to the ground. When I walked into my garden as usual after I had taken my breakfast, I beheld it prostrate on the lawn! Smile not at my weakness, my folly. I wept over it. I wrung my hands as if I had lost the dearest friend I ever possessed, and knelt by its side. It had put forth but few leaves, and there was one short, solitary bunch of flowers on an upper branch. I gathered it, bathed it with my tears, kissed it, and placed it in my bosom. Many times in the day I drew it out from thence, and I laid it, wet with my tears, on my pillow at night.

"The fall of that tree was a salutary blow to me: a fit of sickness followed, my heart was softened, my pride and obstinacy shaken; but who may justly tell the burst of agony that followed the passionate avowal that at length broke from my lips, as the first day I was able to go to the window, and beheld the vacant space that was now presented on the lawn, I yielded myself to the correction that I could no longer resist. 'I am alone! alone in every sense,' I exclaimed, in the bitterness of my soul. 'Would God that I had died years ago! Oh, why, if I asked in ignorance or madness, why was I not answered in knowledge and in wisdom?' Alas! alas! I did not see that in perfect mercy and goodness I was heard, heard for my correction.

"The unhappiness that I experienced at this time was extreme. None, however, but those who, like me, have hardened themselves in conclusions which they have drawn, because desired, or like me, having obtained the object of their wishes, find their folly in their gratification; who, like me, have long chained down conviction, and professed to be deluded when delusion has ceased; who, like me, having clung to feelings, opinions and ideas that sober reason has silently but irresistibly shown to be fallacious—can understand the sufferings I was doomed to undergo.

"Thanks be to that mercy, however, which has never abandoned me, my cure has been made perfect. While acknowledging my own presumption, I have been brought to see and feel the goodness and forbearance of my Creator. Humbled as I am, and convinced of the sin I have been guilty of in desiring so passionately what I could not possibly know was agreeable to the will of my Maker, or if granted would prove a boon to me, I dare not offer one prayer for death when I recollect how many petitions I have urged for life. God, I own, is alone the judge of what is good for us; and to His holy will I have now learnt to submit. True, I sigh for release. True, the load of years, the burthen of increasing infirmities, weigh heavily upon me; and though I have attained an age far exceeding the usual term of man's existence, and am still in possession, to an extraordinary degree, of all my faculties, the night of life surrounds me with all its shadows; I long to depart and be at rest: but though wearisome days are appointed me, and I am full of tossings to and fro till the morning dawn; though I am tempted

to exclaim when I awake, 'Would God it were evening! and when evening arrives, Would God it were day!' I dare not give words to the wish, lest the beam in the wall should utter them, or a bird in the air should convey them to Heaven. May you, who chance to read this record of my folly and presumption, profit by the lesson it contains. Oh! learn from me that length of days is not happiness, nor the granting of any vehement and inordinate desire a subject for our own congratulations. He alone, with whom the future is present as the past, can be a judge of what is fittest for us; and whilst we acknowledge that He has only one view in His dealings with us, our ultimate good, let this be our prayer, this the guide of all our petitions, of our wishes and hopes—'Thy will be done.'"

Mr. Calvert ceased, and folding up the manuscript he remained silent. For some minutes no one attempted to speak. At length William, who, had laid his self-imposed task on his mother's worktable, and which exhibited by the soiled edges of the tape that it had not been executed at one attempt, addressed his father.

"Papa," said he, "shan't you be very glad when poor old Mr. Seagrave is dead?" then fearful that he had expressed himself improperly, he added, "It is quite clear that that is what he himself wishes very much, if he does not exactly say so."

"My dear boy," replied Mr. Calvert, "we must make better use of what we have read, than give expression to any such wish. In God's own good time Mr. Seagrave will, no doubt, be removed from a world which has long ceased to have any enjoyment for him; till that summons arrives, patience and submission to the Divine will are his duty and ours. It is enough for us, in the meantime, to know and feel that it is perfect wisdom and perfect goodness that withholds or grants our petitions, and disposes of every part of our existence. Mr. Seagrave is in his Maker's hands; and if it should be your lot and mine to attend his funeral, as in all probability it will be, let the recollection of what he has here recorded, deepen the impression that the awful ceremony is at all times calculated to give. Many on that occasion will doubtless say, 'The poor old gentleman is gone at last; well, he has lived a long day, and his death is a happy release,' and they will think no more of him, nor of that event which must happen alike to all. Be it ours to profit by the lesson he has so earnestly endeavoured to convey; let us inscribe upon our heart, as on a tablet to his memory, the result of his painful experience,—'man knowing not what is good for himself all the days of his vain life, which he spendeth as a shadow,' is safe only whilst he stays himself on the will of his Creator.'"

About six months after this Mr. Calvert received a message from Mr. Seagrave requesting him to lose no time in going to him, as he had been taken very ill. He obeyed the summons immediately. On reaching the house he was shown directly to Mr. Seagrave's bedchamber. The moment he entered the room, he saw that the hand of death was upon him. His eyes were closed, but he was not asleep; and the step of Mr. Calvert disturbed him. The latter approached the bedside.

"You are ill, sir," said he, very gently.

"God be thanked," answered Mr. Seagrave, "sick unto death! There is no mistaking this feeling, and I am happy."

"You do not suffer, then?" said Mr. Calvert.

"Oh! what are bodily pains, when the sweet hope of forgiveness,

the blessed prospect of release, of a longer and a better life than that which I once so madly desired, is before me? The body is weak, the mind yet strong."

"Have you any wish to express?" asked Mr. Calvert.

"None," replied he. "I am in the hands of my Creator, Redeemer and Sanctifier; and though late, I have learned surely to have no wish but the will of my God."

He lay still for a few minutes, and again closed his eyes.

"Yes," said he, looking earnestly at Mr. Calvert. "I had: I have still one wish, one dread, and it is Nature's dread; I would not die alone among strangers, menials."

"I will not leave you," said he.

Mr. Seagrave smiled faintly.

"We may be selfish in life," said he; "we desire, we need, some pious drops in death."

Mr. Calvert sat down, and took the dying man's hands in his.

"What time of the day is it?" asked Mr. Seagrave.

"Evening," replied he; "the sun is setting, a fit and holy time to die."

"All times, all hours are fitting to die," said Mr. Seagrave quickly, "that our God summons us."

"But the setting of the sun," returned Mr. Calvert, "is a pledge of his rising again."

"My soul fleeth unto the Lord," said Mr. Seagrave distinctly; "before the morning watch I say, before the morning watch."—You and William have nearly the whole of my property. No pomp in my funeral to mock the old man's vain prayer.—'And now shall I sleep in the dust; ye shall seek me in the morning, but I shall not be.'"

All was still. Two hours elapsed, and no sound disturbed the silent hour of night. The clock struck, and Mr. Seagrave made a slight movement. Mr. Calvert instantly bent forward to look at him. A change had passed over his countenance. He tenderly placed his arm under the dying man's head, and gently raised him. He was yet sensible; Mr. Calvert saw that he was recognised, and he caught the words, "Merciful—thanks—than—"

The word remained unfinished, the spirit had fled. Tears trickled down the cheek of Mr. Calvert and fell upon that venerable face now calm in the beauty of death, as with a gentle touch he closed the eyes of the Centenarian.

CURIOSITIES OF VEGETATION.

The vegetation of our globe is a subject which affords endless materials for reflection and admiration. The moss which we heedlessly trample upon, and the towering forest tree, are alike stamped with the seal of an all-wise and all-powerful Creator. A brief account of a few of the remarkable phenomena of the vegetable kingdom may prove both useful and interesting to the reader; and, indeed, it *must* do so if perused in a proper spirit.

The reproduction and dispersion of plants are often performed in curious ways. The Cardamine impatiens throws its ripened seed to a considerable

distance when touched, as do the squirting cucumber, the geranium, the common broom, and others. The mangrove holds fast its berries till they send down long, thread-like roots into the mud below. Many plants send forth runners, and it is highly interesting to observe how these give out shoots at about equal distances, where the soil is favourable, whilst they push their way over hard or stony ground, refusing to put out a single bud until a genial spot is reached. The strawberry is a familiar instance. Other plants—as the bramble and honeysuckle—send out branches which bend downwards till their extremities touch the ground, where they take root, and give rise to new trees. Many leaves—as those of the orange—when they fall upon the ground take root and become new plants.

Cultivation produces surprising effects upon vegetable productions. Potatoes, when wild, are small, and scarcely eatable; carrots are not much thicker than a quill, and of a yellowish-white colour. The dahlia, on the other hand, has been curtailed of one-half of its natural height by culture. The trees of a valley, when removed to an elevated place, become slow of growth and smaller in size, but the timber is tougher and more durable than before. In like manner, when mountain trees are transplanted to a valley their timber becomes softer and less durable. The colours o. flowers change by culture in many ways: a blue flower will change tc white or red, but not to bright yellow; a bright yellow one will become white or red, but never blue. The ranunculus, originally of an intense yellow, changes into scarlet, red, purple, and almost any colour but blue. Sour crabs are metamorphosed by culture into sweet apples, sloes intc plums. The wild rose has but one row of petals; the cultivated one, many. The wild anemone is scarcely an inch across; culture has reared specimens above six inches in diameter.

The Adansonia, or Baobab Tree, is the giant of the vegetable world. One has been seen with a trunk one hundred and four feet in circumference. The height of this tree is from fifty to sixty feet; the branches are of the same length; and when seen at a distance, the vast hemispherical cap of foliage of one of these trees almost resembles a forest. A full-grown Adansonia, with its deep-green leaves and large snowy blossoms, is a beautiful sight. It attains to a patriarchal age: perhaps some trees now living are more than two thousand years old.

The Ficus indica, or Banyan Tree, sends down fibrous roots from its wide-spreading horizontal branches to the ground beneath. These shoots are at first as flexible as hemp, and wave like ropes in the air. They take root in the ground, and serve as props to the ponderous branches, and as new trunks for the further extension of the tree. The full height of a Banyan tree is from sixty to eighty feet, and many of them cover not less than two acres.

The Dracœna, or Dragon Tree—another gigantic tropical plant—has ordinarily an erect trunk, of not more than twelve or fourteen feet in height, which divides into short branches, each terminating in an expanded tuft of pointed, sword-shaped leaves. One at Orotava, in Teneriffe, measured forty-five feet in circumference, and about fifty or sixty in height, in 1799. This venerable tree—supposed to have been one of the oldest inhabitants of our globe—was brought down by a tempest in 1822.

The Courbarils, of Brazil, are described by Von Martius as having trunks eighty-four feet in circumference at the bottom, and sixty feet where the boles become cylindrical. He says, "they looked more like living rocks than trees, for it was only on the pinnacle of their bare and naked bark

that foliage could be discovered, and that at such a distance from the eye that the forms of the leaves could not be made out."

There is a cypress at Chapultepec, in Mexico, which, if still standing, is said to have a trunk one hundred and seventeen feet ten inches in circumference; and the yew of Hedsor, in Buckinghamshire, has a diameter of about twenty-seven feet.

The Norfolk pine, or Kawri of the New Zealanders, attains a huge size. This majestic tree grows to the height of from one hundred and sixty to two hundred and twenty-eight feet. One is spoken of which measured seventy-five feet round the base.

Amongst gigantic flowers and leaves we have the Victoria Regia, a water lily, thus described by its discoverer:—"The leaf on its upper surface is a bright green in form, almost orbicular, except that on one side it is slightly bent in; its diameter measured from five to six feet. Around the whole margin extended a rim from three to five inches high, on the inside light green, on the outside, like the leaf's lower surface, of the brightest crimson. The calyx is four-leaved, each sepal upwards of seven inches in length, and three inches in breadth; at the base they are white, inside reddish brown, and prickly outside. The diameter of the calyx is from twelve to thirteen inches; on it rests the magnificent corolla, which, when fully developed, completely covers the calyx with its hundred petals. When it first opens it is white, with pink in the middle, which spreads over the whole flower the more it advances in age, and it is generally found the next day altogether of a pink colour: as if to enhance its beauty it is sweet-scented." One leaf measured six feet five inches in diameter, and its rim was five inches and a half in height; the flower was fifteen inches across. It was discovered in the river Berbice, in British Guiana.

The Rafflesia Arnoldi is still larger. This colossal parasite is a native of Sumatra, growing on a kind of vine, and having no true stem or leaves. The petals of the flower—discovered in 1818—were five in number, of a dull brick red, and covered with yellowish-white spots. They and the nectary were in few places less than a quarter of an inch thick, and in some places three-quarters of an inch. The flower measured a full yard across: the nectary was thought to be capable of holding twelve pints; and the weight of this prodigy was calculated to be fifteen pounds. It had the smell of tainted beef.

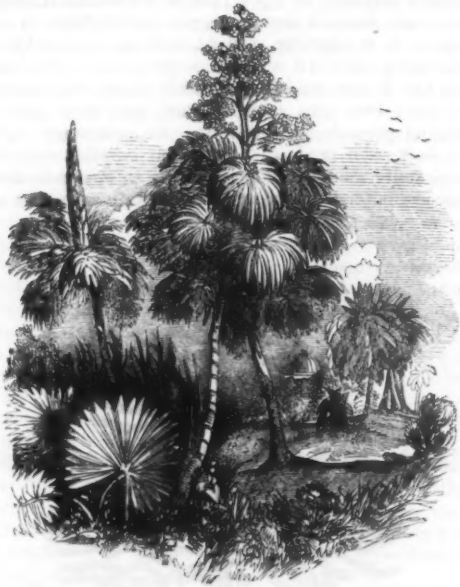
The flowers of the Aristolochiæ, of tropical America, are frequently from fifteen to sixteen inches across, and are used by the Indians as caps in play.

The Magnolia grandiflora, or Tulip Tree, of North America, bears flowers-seven or eight inches in diameter. This superb tree has not unfrequently a straight trunk, ninety feet in height, with a fine pyramidal head of foliage and white blossoms.

The Agave Americana, when it is fully-grown, sends up its gigantic flower stem, which rises from thirty to forty feet high. The topmost, fifteen feet, of this stem often bears hundreds of greenish-white flowers, growing at the extremities of branches, symmetrically arranged around this huge stalk.

The Talipot Tree, peculiar to Ceylon and the Malabar coast, grows to a great height, and sends forth its branchless leaves from its summit. These leaves, when on the tree, are almost circular, and from thirty to forty feet in circumference, so that from eight to a dozen men can find shelter under one of them. They are of a dark-green colour when expanded, and can be

closed or opened like a fan. They are used as a shelter against rain and heat, as a covering for tents, as fans, and as paper. The flower shoots



TALIPOT TREE.

pyramidically above the leaves, and often adds thirty feet to the height of the tree. It is at first a cluster of bright yellow blossoms, of a pungent odour, and bursts from its hard enveloping rind with a sharp noise.

The Erythroxylon coca is a shrub from six to eight feet high, with numerous small white flowers, and greatly resembling a straight-growing blackthorn bush. The leaves are used by the inhabitants of Peru for their peculiar effects upon the nervous system. Masticating the coca-leaf, the Peruvian, when inveterately addicted to this indulgence, remains in the woods for two or three days together, heedless of night or of the tremendous storms that sweep over him. At length he returns home, pallid and trembling, until premature death closes his wretched career. The leaves are chewed with finely-powdered lime. The consumption of coca is universal in Peru.

The Cerbera tanghin, or Tanghien Tree, resembles a plum, and is used in Madagascar to detect criminals. Its fruit is a swift and deadly poison. It is used as follows:—The accused person eats as much boiled rice as possible, and then swallows three pieces of the skin of a fowl, without masticating them. A quantity of tanghien nut, mixed with the juice of bananas, is then administered. Curses are next denounced on the person undergoing the ordeal, if guilty. Rice water is given soon after in copious draughts till vomiting ensues, and then if the three pieces of skin are found the person accused is acquitted, but if they are not found he is condemned.

There is plenty of room for jugglery in this ordeal, and the administrators can make it fatal or not as they please.

The Antiaris toxicaria, or Upas Tree, of the Indian Archipelago, sometimes attains one hundred feet in height, and eighteen in circumference near the base. It is tolerably straight, and has a smoothish white bark. The fruit is velvety, and not unlike a purple plum. The tree is found in fertile spots, and is not avoided by animals as has been stated, for lizards and insects have been seen upon its trunk, and birds upon its branches. But in clearing grounds near this tree the inhabitants do not like to approach it because it produces a cutaneous eruption when newly felled. A man accidentally wounded in the elbow by an upas poisoned arrow, died in half an hour; the natives prepare the poison in a peculiar manner.

ARAUCARIA IMBRICATA.

The Araucaria imbricata, of the Patagonian Andes, is thus described by Pœppig:—"When we arrived at the first araucarias the sun had just set, still some time remained for their examination. What first struck our attention were the thick roots of these trees, which lie spread over the stony and nearly naked soil like gigantic serpents, two or three feet in thickness; they are clothed with the same rough bark as the lofty pillar-like trunks,

which are from fifty to a hundred feet in height. The crown of foliage occupies only about the upper quarter of the stem, and resembles a large depressed cone. The lower branches, eight or twelve in number, form a circle round the trunk: they diminish till there are but four or six in a ring, and are of a most regular formation, all spreading out horizontally and turned up at the tips. They are covered with leaves like scales, sharp pointed, above an inch broad, and of such a hard texture that it requires a sharp knife to cut them from the parent branch." "Its fruits, placed at the end of the boughs, are quite round, and about as big as a man's head, and consist of beautiful layers of scales that cover the seeds, which are the most important part of this truly noble tree." "A single fruit contains between two and three hundred kernels, and there are frequently twenty or thirty fruits on one tree; and as even a hearty eater among the Indians cannot (except he be deprived of every other kind of sustenance) consume more than two hundred nuts a day, it is easily seen that eighteen araucarias will maintain a single person for a whole year." Pœppig adds other interesting particulars respecting these valuable trees.

The Stagmaria verniciflua, or Varnish Tree, is a native of the Eastern Archipelago, and attains a considerable size. The leaves are smooth and shining, and the flowers white. A resin exudes from the bark, which blisters the skin; this resin soon becomes hard and black, and is sold at a high price for a varnish. It is said that this tree produces the famous Japan lacquer.

Trees yielding vegetable soap are found in the tropical parts both of the Old and New World. In the East Indies soap-berries are to be bought in every bazaar. The fleshy part of these berries is viscid, and assumes a shining semitransparent appearance in drying. They form a lather when rubbed with water. The bark and root of the plants yielding these berries possess similar properties.

The Croton sebiferum, or Tallow Tree, is a native of China, and resembles a pear tree. The trunk is short and thick, the bark smooth, the leaves dark purple or bright red, and the blossoms yellow. The fruit is contained in a husk, which opens when this fruit is ripe, and discloses three white grains about as large as a nutmeg. These yield the vegetable tallow which, when properly prepared, makes excellent candles. There are also tallow-yielding trees in other countries.

The Phytelephas macrocarpa, or Vegetable Ivory Tree, is a South American palm. The fruit at first contains a clear insipid fluid, which afterwards becomes sweet and milky, and alters its taste as it hardens, till at length it becomes nearly as firm as ivory. Other trees furnish a similar substance in various countries.

The Ficus elastica, or Caoutchouc Tree, is a native of South America and India. It grows to a good size, has shining, pointed, oval leaves, and small inedible fruit. The milk which yields caoutchouc is obtained from incisions made through the bark of the trunk and branches. This juice separates into a firm elastic substance and a fœtid liquid. The juice yields about one-third of its weight of caoutchouc. Other trees furnish a substance more or less like this.

The Gutta Percha Tree is widely scattered over the Indian Archipelago. It is from sixty to seventy feet in height, and from two to three feet in diameter on the average. The milky sap, which exudes from incisions made in the bark, is boiled to drive off the watery particles; but if a tree is only partially wounded and a small quantity of juice extracted, it may be

moulded in the hand, and will consolidate in a few minutes into gutta percha.

CAOUTCHOUC TREE.

The Bassia, or Butter Tree, has representatives in different countries.

The Sheah Tree, of Africa, greatly resembles the American oak. The kernel of its fruit, when boiled, yields a white firm butter, as fine flavoured as the best that can be obtained from the cow.

The Palo de Vacca, or Cow Tree, of South America, grows to a great size; one measured by Sir R. Ker Porter was more than twenty feet in circumference, at about five feet from the root. This trunk shot up branches to the height of sixty feet, and then sent out vast arms and luxuriant foliage. The whole height was then fully one hundred feet. Larger trees were visible at a distance. The leaves are leathery, and about ten inches long. When the trunk is pierced it yields an abundance of glutinous milk, tolerably thick, free from all acridity, and of an agreeable smell.

Another milk tree is found in Demerara. When first seen by the writer of the account from whom we draw our information, it had been recently felled, and its juice had completely whitened the water of a little rivulet across which it had fallen. On sticking a knife into the bark a copious stream of milk-like fluid immediately followed. It was thicker and richer than cow's milk, destitute of acridity, but left a slight feeling of clamminess on the lips.

The Urania speciosa, a native of Madagascar, is thus described by Backhouse in his 'Visit to the Mauritius and South Africa:'—"Clumps of these trees, composed of several stems rising from the same root, are scattered over the country in all directions. The trunks, or more properly

root-stocks, which are about three feet in circumference, sometimes attain to thirty feet in height; but whether of this elevation or scarcely emerging above ground, they support grand crests of leaves of about four feet long and one foot wide, but often torn into comb-like shreds. The head is of a fan-like form, and the flowers, which are not striking for their beauty, are white, and produced from large horizontal green sheaths. The foot-stalks of the leaves, which are somewhat shorter than the leaves themselves, yield a copious supply of fresh water, very grateful to the traveller, on having their margin cut away near to the base, or forced from contact with those immediately above them, especially those about the middle of the series." "Probably the water may originate in the condensation of dew, and be collected and retained by the peculiar structure of the leaf; it has a slight taste of the tree, but is not disagreeable."

The Nepenthes distillatoria, or Pitcher Plant, which is common in Ceylon and other Eastern countries, has a pitcher-shaped bag attached to the foot-stalk of each leaf near the base. This curious appendage has a neatly-fitting lid, moveable on a fibrous hinge. By the contraction of this fibre the lid is lifted up, and dew or rain collected in the pitcher, which saturates the vessel. Then the lid descends and closes in the fluid so as to prevent evaporation, and as soon as the plant has drained off this supply the lid again opens. According to another account, the Nepenthacæ have large hollow bodies in the place of leaves, furnished with a lid, and secreting water, form a peculiar glandular apparatus with which they are lined.

As instances of motion in plants, we may mention the folding of some flowers when the sun is absent, and the opening of others when he has departed. The white marigold closes its flowers when rain approaches; and the dwarf celandrina shuts up its crimson corolla at about four o'clock every afternoon.

The Mimosa pudica is so sensitive that Von Martius says that at Rio Janeiro the falling of horses' feet by the way sets whole masses of this plant in motion. The genus Oxalis possess the property, in a greater or less degree in different species, of folding their leaves when stimulated. The sundews have the surface of their leaves covered with long hairs, which secrete a viscous substance. If an insect settles upon the leaf it is impeded by this secretion, and before it can escape the hairs curve round and pin the animal down to the leaf. The stamens of the barberry, when touched with a pin, spring forward and make a bow to the stigma. The oscillatoria —common in ditches, ponds, and damp places—have animal-like movements when young; now twisting themselves into the shape of an S, then straightening themselves, twisting again and so on. The Hedysarum gyrans, of Bengal, has compound leaves; the end leaflet being larger and broader than the two side leaflets. The terminal leaflet moves under the influence of the sun's rays; the two lateral ones rise and fall alternately, so that when one is up the other is down. The movements of these side leaflets continue day and night, but the rapidity with which they take place varies.

There is an Australian plant which erects a column formed by the union of parts of its structure on the application of heat. The Dionæa muscipula, a native of Canada, has leaves with broad leaf-like stalks. These fleshy leaves are armed with strong sharp spines, three on the blade of each lobe of the leaf, and with a fringe of longer spines round their margins. When an insect comes in contact with the base of the central

spines the leaf closes, impaling the insect or entrapping it. The leaf remains shut up, having its spiny fringe firmly interlaced, until the body of the insect has wasted away.

Some plants are luminous, and the Dictamnus albus will inflame if a light is applied, so that the bush may be enveloped with flames without being consumed.

When plants are budding, heat is sensibly liberated: a piece of ice placed on a growing leaf-bud melts, when it would remain frozen in the open air; and it is found that the surface of growing plants is several degrees higher than the surrounding air.

Microscopic vegetation is found in truly amazing abundance: but this subject must be left for separate consideration. An account of some of the marvels of these minute plants will be found in the article on "The Curiosities of the Microscope," in the 'Home Friend.'

And now that our few and brief remarks are brought to a close, we hope that they will tend to direct the attention of our readers to an inexhaustible source of pure and refined pleasure—the study of nature—which is open to almost all.

> "Not a plant, a leaf, a flower, but contains
> A folio volume. We may read, and read,
> And read again, and still find something new—
> Something to please, something to instruct,
> Even in the noisome weed."

THE PRAIRIE ON FIRE.

Some of the central parts of North America are occupied by vast plains destitute of water, and almost of all vegetation but grass. They are called Prairies, from a French word signifying a meadow. The surface sometimes swells into a hill, called a prairie-bluff; but more frequently the horizon everywhere presents a perfectly straight line, and nothing is

seen to rise above it. "The traveller," says Catlin, "feels weak and overcome when night falls; and he stretches his exhausted limbs apparently on the same spot where he slept the night before, with the same prospect before and behind him, the same canopy over his head, and the same cheerless sea of green to start upon in the morning."

The vast crop of grass having ripened its seed, dies, and is converted by the heat of the sun and the wind into a dry and inflammable mass. In autumn, or early in the spring, it frequently catches fire, and the progress of the flames is not arrested, except by a river or by heavy rain. The prairie is sometimes set on fire accidentally by white men or by Indians; at other times it is done purposely, in order to get a fresh crop of grass for their horses, and also to enable them in the following spring to travel with greater ease, by getting rid of the old grass, which entangles the feet of men and horses. The fire is comparatively harmless while it creeps along the elevated lands and prairie-bluffs, where the grass is short and thin. The feeble flame creeps slowly along, and both men and animals can leap easily over it and escape injury. At night it presents a beautiful appearance, the bluff itself being lost to view, and the chains of liquid fire, as it would seem, hanging in brilliant and sparkling festoons from the sky.

But in meadows, where the grass is seven or eight feet high, a fire is a sublime and terrific spectacle. The vast body of flame, urged by a strong wind, travels at a fearful rate, and often destroys parties of Indians who are overtaken by it; not that the fire travels as quickly as a horse at full speed, but that the high grass is filled with wild pea-vines, and other impediments, which often compel the rider to follow the zigzag track of the deer and the buffalo. This retards his progress, and he is soon overtaken by dense clouds of smoke, which terrify and bewilder the horse, so that he refuses to proceed. The suffocating smell of burning vegetable matter, the roar of the flames resembling that of a cataract, and the red glare of light as from some vast furnace, complete the awful character of the prairie-fire.

All animals flee before this fiery tempest. The screaming eagle, the swift-winged beetle and heath hen, the antelope, and the long-legged hare, all contend with the horse and his rider in the endeavour to gain some distant prairie-bluff—a small island rising above a sea of fire, where they can rest until the danger is over.

DAY-DREAMS OF CHEMISTRY.

THE origin of the science and the etymology of the name of alchemy are both shrouded in mystery. Egypt, Arabia, Greece, are all pointed at as birthplaces of this chimera. But we will commence our history with European alchemy, as introduced partly by the Moors and partly by the returning Crusaders.

Roger Bacon is the earliest authentic writer on European alchemy. He was born in 1214, in Somerset, and was a Franciscan friar. Bacon was charged with having made a brazen head, which gave oracular responses when consulted; and, after undergoing more than one imprisonment, he was at last poisoned by his fellow-monks.

He gives a receipt for the preparation of gunpowder, and in it he

designates charcoal "luruvopovircanutriet," possibly because he did not know what this ingredient was. The Chinese, however, appear to have been acquainted with gunpowder before the Christian era.

Bacon believed that fluid gold—that is gold dissolved—was the elixir of life; and told Pope Nicholas IV. that an old man found a golden phial containing a yellow liquor in Sicily, which he drank, supposing it to be dew, though we never heard of yellow dew before. He was then transformed into a healthy and accomplished youth, and served in the Sicilian court about eighty years. But though Bacon held the opinion that the inferior metals are convertible into gold, he did not pretend to have effected the transformation.

Albrecht Groot, or Albertus Magnus, is the next distinguished alchemist, for though born before Bacon, his appearance as an author is of a rather later date. He was appointed to the episcopate of Ratisbon. But his alchemical pursuits appear to have taken a practical turn, rather than a visionary one. Thomas Aquinas was a pupil of his, and wrote several treatises on alchemy.

Raymond Lully was born at Majorca in 1235. He is said to have studied under Roger Bacon. He travelled through various countries, preaching Christianity; and, according to one account, was stoned to death on the coast of Africa, in the midst of a sermon; but we are also told that he died in Majorca. He termed the spirit of wine aqua vitæ ardens, and declared it to be the elixir of life; and too many at the present day appear to incline to a similar opinion. His works abound in jargon.

Amaldus de Villa Nova was born in Provence, in about 1240, and educated in Spain. He had to decamp for predicting the death-day of Peter of Arragon. Amaldus was consulted by kings and popes, and declared that the world would be blown up in 1335. Gold and gold-water were, according to him, the best of all medicines.

Isaacus Hollandus, and his brother or son, come next in order, but there is nothing concerning them particularly worthy of mention.

Basil Valentine was born in 1394, and became a Benedictine monk. He held that the philosopher's stone is a compound of mercury, sulphur, and salt, and that it brings the inferior metals into a state of greater and greater purity, until at length they arrive at the condition of silver and gold. Antimony was an especial favourite with him.

Paracelsus—the prince of alchemists—was born near Zurich, in the early part of the sixteenth century. His real name was Theophrastus Bombastes. He died in a mean tavern, when only forty-eight years old. He seems to have dimly conceived a fifth element—an alcahest—which should be the philosopher's stone, the universal medicine, and the solvent which could dissolve all things. Paracelsus was a turbulent, overweening, and insolent quack; but he possessed great talents.

Here, properly speaking, the history of alchemy closes, for after Paracelsus, alchymists seem to have divided into two classes—the one foolish, antiquated theorists—the other painstaking experimentalists. The age was in advance of the former; and their chief employment seems to have been to compose mysterious nonsense into treatises, and ascribe them to some bygone chieftain of their science. They had powder of attraction which drew all after its possessor; the grand elixir which bestowed undying youth upon him who was pure and brave enough to quaff it; the philosophical stone and the philosopher's stone; the alcahest; and spirits so subtile, that if dropped from a phial, they never reach the ground.

Suns, moons, kings, queens, bridegrooms, brides, birds, dragons, lions, fountains, baths, waters of life, salts of wisdom, are favourite topics with these drivellers. These are the men who stirred crucibles with rods at whose extremity gold had been cunningly placed; and, lo, an aureous current glistened in the eyes of the duped on-looker. Nails, half iron half gold, and well cemented and lackered, astonished the greedy gaze of spectators with the sight of the precious metal extracted from plain iron! These impostors also secretly put fragments, filings, dust, oxides, amalgams, or salts of gold or silver, into their vessels to cheat their dupes.

The greater part of the alchemical treatises ordinarily met with were written in this period, and their authors generally stamped their base coin with the superscription of some old celebrity. Here is a favourable specimen of their ravings:—"All composed things are of a frail and perishing nature, and had at first but one only principle. In this all things under the cope of heaven were enclosed, and there they lay hid; which is thus to be understood, that all things proceeded out of one matter, and not every particular thing out of its own private matter by itself. This common matter of all things is the great mystery, which no certain essence or prefigurated idea could comprehend. Nor could it comply with any property, it being altogether void of colour and elementary nature. The scope of this great mystery is as large as the firmament. And this great mystery is the mother of all the elements, the grandmother of all the stars, trees, and carnal creatures." We could mention more than one modern author of notoriety who appears to have copied his own fantastic style from the jargon of these dreamers.

And, strange to say, enthusiastic visionaries of an alchemical complexion are to be found in the middle of the nineteenth century. Mormonites, spirit-rappers, Southcottians, astrologers, alchemists, and fanatics of all hues: what a motley group in this enlightened age, as we complacently term it!

But we must close. Let us briefly recount the three dogmas and cherished visions of the true alchemists.

I. They believed in the transmutability of metals. Thales taught that water is the essence of all things. Wood, stone, iron, were all water changed into another form. Again the four elements, as they were termed—fire, earth, air, and water—were said to be the sole components in nature. Another theory was that mercury, sulphur, and arsenic were the universal substratum. The metals were all composed of two substances, mercury and sulphur, mixed in different proportions. Ideas resembling these have been entertained in modern times by clear-sighted philosophers. "Matter," says Davy, "may ultimately be found to be the same in essence, differing only in the arrangement of its particles; or two or three simple substances may produce all the varieties of compound bodies." If we mistake not, Newton threw out a similar hint.

II. They believed in an alcahest—a dissolver of all things. Lavoisier wondered that it never struck the alchemists that no vessel could contain this universal solvent. Fluorine seems to be this alcahest, or an approach to it. Two brothers, named Knox, are said to have been successful in their attempts to catch this orange-coloured gas in vessels of fluor spar, though it may not yet have been obtained in a pure state. Faraday has made experiments in this curious nook of the domain of chemistry.

III. European alchemists believed in the elixir vitæ—a medicine which

would heal all curable diseases, and lengthen human life far beyond its general duration. Ultimately, this theory merged into the idea of an elixir which conferred immortality upon those who took it. Even Francis Bacon and Descartes dreamed wonderfully absurd fantasies about the prolongation of life. The latter of them really fancied that he had lengthened our existence several hundred years.

Peter Woulfe, Price, and Bergmann believed the transmutation of metals to be possible. Strange to say, the last-named eminent chemist, when speaking of the many accounts of transmutation given by different writers, remarks that, "Although most of them are deceptive, and many uncertain, some bear such character and testimony that unless we reject all historical evidence, we must allow them entitled to confidence."

Thomson has endeavoured to discover the nature of the pretended philosopher's stone; and, after quoting an account given by one of the alchemists, he concludes that it was most probably an amalgam of gold—a convenient substance for imposition.

It is melancholy to study this page in the history of the human mind. Avarice and imposture peering over the crucible, whilst the furnace-glare gleams upon their sallow and care-wrinkled features, is a painful picture to gaze upon. What a striking exemplification of the inspired declarations—"They that will be rich fall into temptation and a snare, and into many foolish and hurtful lusts;" "The getting of treasures by a lying tongue is a vanity, dispelled by the messengers of death"—does the history of alchemy unfold to our view! And yet the goodness and wisdom of God are ever extracting gold from dross—good from evil—the only and the true transmutation of what is base into what is useful; for even alchemists, "by their absurd pursuits, gradually formed a collection of facts which led ultimately to the establishment of scientific chemistry," even if they injured science, as some assert, by bringing it into disrepute.

Tortoises live to a great age. In the library at Lambeth Palace there is the shell of one of these animals, which was brought to that palace in the year 1633 by Archbishop Laud, and lived till the year 1753, when it was killed by the cold weather. A labourer in the garden having dug it up from its winter retreat, and neglecting to replace it, a frosty night killed it. Another was placed in the Bishop of London's garden at Fulham in 1628. This died a natural death in 1754. The ages of these tortoises were not known when they were first placed in these gardens. Jesse.

SEAWEEDS.

Oh! call us not weeds, but flowers of the sea,
For lovely and gay, and bright-tinted are we;
Our blush is as deep as the rose of the bowers,
Then call us not weeds, we are ocean's gay flowers.

Not nursed like the plants of the summer's parterre,
Whose gales are but sighs of an evening air;
Our exquisite, fragile, and delicate forms
Are the prey of the ocean when vexed with his storms.